

# ADDENDUM

*Chapter 1: Making the Case for  
Population-based Cardiovascular  
Health Interventions*

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**ADDENDUM 1**

## Making the Case for Stroke Communication

Recent changes in stroke treatment provide opportunities for population-based and systems-change interventions. For example, recombinant tissue plasminogen activator (t-PA) treatment for acute stroke must be administered within 3 hours of a stroke event. Currently, only a tiny fraction of stroke victims arrive at the hospital in time for lifesaving and disability-sparing t-PA treatment. That is why it is critically important that bystanders or those with stroke symptoms call 9-1-1 to reduce the delay in getting the stroke patient to the hospital. Equally important is the need for health care providers to get systems in place to ensure that once patients present at the emergency department, they are seen by a neurologist, evaluated by CT scan, and treated with t-PA, if appropriate.

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A GROWING BODY OF LITERATURE ADDRESSES the use of communication interventions to enhance awareness of stroke symptoms and increase the number of patients who arrive at the hospital in time to be eligible for acute stroke treatment. Although various studies have shown that communication and education can facilitate timely and effective care for acute stroke, few have been replicated to validate their findings. Also lacking are comparisons that would show which communication elements are the most effective and, therefore, the best candidates for widespread implementation.

The studies reviewed here document a lack of knowledge among the public about stroke signs and symptoms, risk factors, and the necessity of calling 9-1-1 if someone appears to be having a stroke. They also offer some insights into how communication and education interventions have been used to boost awareness of signs and symptoms of stroke and increase communities' treatment rates for ischemic stroke. Others document success with behavioral interventions for medical professionals and with systems changes implemented within hospitals.

Looking across the studies reveals some findings that could serve as a basis for communication and education interventions to decrease stroke patients' "time to hospital" and decrease the "time to needle" once they arrive at the hospital:

- Multifaceted efforts that combine multiple communication channels (for example, those using mass media and in-person communication in combination with systems changes in health care settings) are more effective than single-channel communications for reducing patient delays.
- Television is often cited in surveys of the public as the main source of information about stroke. Low-level, intermittent television advertising has been shown to increase public awareness of the warning signs of stroke as effectively as continuous, high-level television advertising.
- Public service advertising (print and broadcast) has been effectively used to increase knowledge of the signs and symptoms of stroke but has not yet been shown to decrease patient delay in calling 9-1-1 or getting to the hospital.
- People at highest risk of stroke are the least knowledgeable about stroke warning signs and risk factors.
- Interventions that target medical professional behavior or involve systems-level change at hospitals have led to significant and sustainable increases in numbers of patients receiving timely acute-stroke care.
- Because bystanders are more likely to place an emergency medical services (EMS) call than are stroke patients themselves, caregivers, coworkers, and family members need to know the importance of dialing 9-1-1.

Following are summaries of articles reviewed:

### **Effects of Public and Professional Education on Reducing Delay in Presentation and Referral of Stroke Patients**

*Stroke*, March 1992

This study evaluated the effectiveness of educational efforts aimed at reducing patients' time in getting to the hospital when they experience strokes. During the time of the study, trials for many acute stroke therapies were being conducted, including the trials for tissue plasminogen activator (t-PA). The study took place at Duke University Medical Center from November 1985 through January 1987 and again from January 1988 through December 1988. Between these time periods, study coordinators completed a communication intervention, which included paid radio and television advertisements and newspaper coverage. In addition, study coordinators provided materials for primary care physicians, encouraging them to refer patients to Duke. Before the educational efforts were initiated, 37% of patients presented to the hospital within 24 hours of symptom onset; after the educational efforts, this figure increased to 86%. The study concluded that patients who received messages from television, radio, or newspaper outreach or those who were referred through their physicians significantly reduced delay time in getting to the hospital.

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Alberts MJ, Perry A, Dawson DV, Bertels C. Effects of public and professional education on reducing the delay in presentation and referral of stroke patients. *Stroke* 1992;23(3):352–6.

### **Critical Factors Determining Access to Acute Stroke Care**

*Neurology*, August 1998

The DASH study, conducted in Texas from 1995 through 1997, assessed the roles of gender, ethnicity, and access to care in delay time for presentation at a hospital for stroke treatment. Data were obtained through documentation of stroke patients by emergency departments. The median delay was 222 minutes for African-American patients, 230 minutes for non-Hispanic whites, and 280 minutes for Hispanic-Americans. In addition, the study found that a neurologic consultation was completed within 3 hours of symptom onset for 28% of African-American patients, 34% of non-Hispanic whites, and 18% of Hispanic-Americans. The investigators concluded that gender and access to care, in addition to race/ethnicity, might be important determinants in the delay time for stroke patients presenting to the hospital.

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Menon SC, Pandey DK, Morgenstern LB. Critical factors determining access to acute stroke care. *Neurology* 1998;51(2):427–32.

### **Rapid Response to Stroke Symptoms: The Delay in Accessing Stroke Healthcare (DASH) Study (Abstract)**

*Academic Emergency Medicine*, January 1998

The DASH study, conducted from July 1995 to March 1996, assessed causes for delay in getting stroke patients to a hospital by using data from registered patients with signs and symptoms of stroke. Investigators found the median delay to be three hours and noted that delay was shorter when a bystander recognized the signs of a stroke and when EMS was utilized for transport to the hospital.

Rosamond WD, Gorton RA, Hinn AR, Hohenhaus SM, Morris DL. Rapid response to stroke symptoms: the Delay in Accessing Stroke Healthcare (DASH) Study. *Academic Emergency Medicine* 1998;5(1):45–51.

### **Activation of Emergency Medical Services for Acute Stroke in a Nonurban Population: The TLL Temple Foundation Stroke Project**

*Stroke*, August 2000

As part of the TLL Temple Foundation Stroke Project to identify target populations for stroke education, the investigators used chart abstraction and structured interviews for hospitalized stroke patients in nonurban East Texas to determine if EMS was activated and, if so, by whom. From February through October 1998, 429 stroke patients were documented at participating hospitals. EMS was contacted for transport in only 38% of these cases, and only 4.3% of acute stroke patients placed calls themselves to EMS.

In the subset of 38% of the stroke patients transported by EMS, a family member or significant other called EMS for 60.1%, a paid caregiver called for 18.4%, and a coworker or others called for 12.9% of the group. Employed individuals in this subset were 81% less likely to have EMS activated; this finding may imply coworkers transport patients to a hospital instead of contacting EMS.

These data suggest that bystander and caregiver messages may be important to minimize delays for time-dependent acute therapy for stroke patients and that educational programs should target family members, paid caregivers, and coworkers of those at greatest risk of a stroke.

This study found no significant connection between gender and insurance status for activating the EMS system but did note that whites and men were more likely to have a bystander activate EMS.

Wein TH, Staub L, Felberg R, Hickenbottom SL, Chan W, Grotta JC, et al. Activation of emergency medical services for acute stroke in a nonurban population: the TLL Temple Foundation Stroke Project. *Stroke* 2000;31(8):1925–8.

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## Acute Stroke Care in Non-urban Emergency Departments

*Neurology*, December 11, 2001

This study, conducted as part of the TLL Temple Foundation Stroke Project, assessed practice patterns in East Texas rural emergency departments for acute stroke. The data were collected in two counties, and 10 hospitals were evaluated in total. All hospitals possessed equal resources for care (e.g., neurologist, CT scan, EMS availability). The study was conducted from February through November 1998, and 429 patients were determined to have had strokes. Of the 429 patients, 59% were women, 20% were African-American, and less than 2% were Hispanic. Risk factors for these patients included hypertension, previous stroke, former and current smoking, coronary artery disease, diabetes, and atrial fibrillation. All patients received similar emergency department care, regardless of age, gender, and race. Intravenous t-PA was administered in 1.4% of ischemic stroke cases. Also noted was a lack of use of the NIH Stroke Scale, although it is a valid means for assessing stroke patients, and its implementation does not delay patient treatment.

The investigators concluded that the role of the neurologist in stroke care remains undefined, and that if neurologists were to assume a leadership role in patient care, quality of care for stroke patients might improve. They also found that acute stroke care in this representative non-urban community frequently does not follow nationally published guidelines (e.g., not all patients receive CT scans), although they noted that published guidelines are not always followed strictly in some of the largest urban hospitals.

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Burgin WS, Staub L, Chan W, Wein TH, Felberg RA, Grotta JC, et al. Acute stroke care in non-urban emergency departments. *Neurology* 2001;57(11):2006–12.

## Trends in Community Knowledge of the Warning Signs and Risk Factors for Stroke

*Journal of the American Medical Association*, January 2003

This study examined temporal trends in public knowledge of stroke signs and symptoms as well as stroke risk factors. Investigators used random-digit dialing to survey more than 2,000 people in five counties in the Cincinnati area to assess respondents' knowledge of stroke symptoms, stroke risk factors, and personal demographic data. When comparing results of the 2000 survey with the same survey conducted in 1995, study coordinators determined that the knowledge of stroke warning signs had improved significantly during the five years between surveys, although knowledge of risk factors did not. Most respondents commented that television and their primary care physician were sources for their knowledge about stroke. These results led the investigators to conclude that educational efforts can significantly increase knowledge about stroke and that such programs should focus on those who are at the greatest risk of stroke.

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Schneider AT, Pancioli AM, Khoury JC, Rademacher E, Tuchfarber A, Miller R, et al. Trends in community knowledge of the warning signs and risk factors for stroke. *Journal of the American Medical Association* 2003;289(3):343–6.

## **Advertising Strategies to Increase Public Knowledge of the Warning Signs of Stroke**

*Stroke*, August 2003

This study was undertaken by the Heart and Stroke Foundation of Ontario to track knowledge of the warning signs of stroke in four communities and to evaluate the impact of different media strategies. Data were collected through telephone surveys in both control and intervention communities before and after mass media campaigns. The study found that both men and women under 65 years of age in communities exposed to television advertising increased their ability to recognize stroke symptoms significantly more than those in unexposed communities, although there was no significant increase in recognition by people aged 65 years or older. There was no significant change in the community receiving print (newspaper) advertising. Intermittent, low-level television advertising was as effective as continuous, high-level television advertising.

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Silver FL, Rubini F, Black D, Hodgson CS. Advertising strategies to increase public knowledge of the warning signs of stroke. *Stroke* 2003;34(8):1968–9.

## **Sustained Benefit of a Community and Professional Intervention to Increase Acute Stroke Therapy**

*Archives of Internal Medicine*, October 2003

The investigators assessed the sustainability of the effects of community and professional educational interventions related to stroke. This final part of the TLL Temple Foundation Stroke Project ran from January 1999 through March 2000 and involved targeting a community with stroke information in television and radio public service announcements, posters, educational brochures, billboards, and training sessions. The communication interventions provided more than 49,000 residents with messages about signs and symptoms of stroke, the importance of acting quickly to get to the hospital, and the value of asking for intravenous t-PA, if appropriate. To educate physicians about the importance of improved acute stroke care, the intervention relied upon systems change within hospitals. Success stories were highlighted, and protocols were developed for stroke treatment.

During the intensive interventions, significantly more patients with acute stroke received intravenous t-PA than in the control community. The researchers then determined utilization rates of intravenous t-PA for stroke patients from April through September 2000, six months after the cessation of the educational interventions. During this time, 238 validated acute strokes were documented, and 11.3% of acute ischemic strokes were treated with intravenous t-PA—a tenfold increase over the national average. The researchers noted that the professional intervention was clearly successful and led to a 55.6% increase in the treatment of eligible candidates. The study had significant impact on primary care providers and internists who prompted the change in protocol within their institutions.

Delay time for stroke patients to receive treatment was largely unaffected during this study, though the investigators noted their belief that messages constantly targeted at appropriate audiences likely would improve response times for patients.

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Morgenstern LB, Bartholomew LK, Grotta JC, Staub L, King M, Chan W. Sustained benefit of a community and professional intervention to increase acute stroke therapy. *Archives of Internal Medicine* 2003;163(18):2198–202.

### Low Public Recognition of Major Stroke Symptoms

*American Journal of Preventive Medicine*, November 2003

This study was conducted by the Cardiovascular Health Branch of the Centers for Disease Control and Prevention (CDC) to measure the level of awareness for the warning signs of stroke. The 61,019 adults who participated in the 2001 Behavioral Risk Factor Surveillance System were asked if they could identify the major symptoms of stroke from a nonspecific list of symptoms.

It was found that only 17.2% of respondents could correctly classify all stroke symptoms and indicated they would call 9-1-1 if they thought someone was having a stroke. Recognition and knowledge of stroke were notably low among ethnic minorities, younger and older people, those with less education, and nonsmokers. There were no substantive differences by history of hypertension, diabetes, heart disease, or stroke. It was concluded that public recognition of the five major stroke symptoms is low and that increasing knowledge of stroke urgency requires education campaigns both to increase awareness among general audiences and to target high-risk persons.

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Greenlund KJ, Neff LJ, Zheng ZJ, Keenan NL, Giles WH, Ayala CA, et al. Low public recognition of major stroke symptoms. *American Journal of Preventive Medicine* 2003;25(4):315–9.

### Factors Associated with Hospital Arrival Time for Stroke Patients

*Journal of Neuroscience Nursing*, June 2004

This study investigated factors associated with hospital arrival time for stroke patients. The investigators used descriptive, cross-sectional data from a convenience sample of 50 stroke survivors and/or their companions in Indianapolis, Indiana. Behavioral data were obtained regarding transportation, action time, the decision to seek hospital care, and alerting signs, among others.

It was found that only 28.9% of patients arrived at the hospital within 3 hours of the first warning sign of stroke, with the mean arrival time for the group being 5.5 hours. Mode of transportation and perceived adequacy of income were the only significant factors associated with the length of delay. Patients arriving in private car or taxi and those describing their incomes as comfortable had the longest delays. This information suggested public education efforts also should target people from higher socioeconomic groups. Non-significant associations between hospital arrival time, warning signs, and other demographic characteristics suggest there may be other unmeasured behavioral factors that play important roles in the delay time before stroke patients present to the hospital.

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Maze LM, Bakas T. Factors associated with hospital arrival time for stroke patients. *Journal of Neuroscience Nursing* 2004;36(3):136–41, 155.

**Awareness of Stroke Warning Signs—17 States and the U.S. Virgin Islands, 2001**

*Morbidity and Mortality Weekly Report*, May 2004

This article documents CDC's efforts to evaluate stroke education as part of its leadership role in pursuing the goals of Healthy People 2010. As mentioned in the foregoing synopsis of Greenlund et al.'s article, "Low public recognition of major stroke symptoms," an analysis of 2001 Behavioral Risk Factor Surveillance data from 17 states and the U.S. Virgin Islands showed that public awareness of several stroke signs is high, but the ability to recognize all five major warning signs is low. Of the five major stroke warning signs, public awareness of three is high: sudden numbness or weakness of the face, arm, or leg; sudden confusion, trouble speaking, or understanding; and sudden trouble walking, dizziness, or loss of balance or coordination. The signs least recognized were sudden trouble seeing in one or both eyes and sudden, severe headache with no known cause. Approximately 37.8% of respondents incorrectly reported chest pain as a sign of a stroke. Education campaigns are needed to increase public awareness of stroke signs and the necessity of calling 9-1-1 when someone is suffering a possible stroke.

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Centers for Disease Control and Prevention. Awareness of stroke warning signs—17 states and the U.S. Virgin Islands, 2001. *Morbidity and Mortality Weekly Report* 2004;53(17):359–62.

**ADDENDUM 1**

# ADDENDUM

*Chapter 2: Learning About Policy  
and Environmental Change*

*chapter*

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ADDENDUM 1

## Working on Stroke Legislation

This chapter supplement addresses how a bill becomes law and describes how pending federal legislation on stroke could affect state legislation and the state legislative process in regard to stroke-specific bills. Chapter 2 of the *Communication Guide* offers a discussion of the differences between advocacy and lobbying and offers some guidelines about how state staff can work with legislatures. Generally, state programs can provide information to the legislative branch to foster implementation of public health interventions but cannot work to influence a specific piece of legislation. The information in this section complies with Regulation AR-12, which prohibits using federal funds for lobbying activities.

### **THIS SECTION PROVIDES**

- A step-by-step look at how a federal bill becomes law;
- An overview and legislative history of the federal STOP Stroke bill;
- A mock timeline for stroke legislation with suggestions for how state staff can participate at different milestones;
- Case studies of two states' implementation of stroke legislation or regulations; and
- Resources on state stroke legislation.

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#### **REVIEW OF THE FEDERAL LEGISLATIVE PROCESS: HOW A BILL BECOMES LAW**

- 1** Bill is introduced. A bill designated “H.R.” is in the House of Representatives. A bill designated “S” is in the Senate.
- 2** Bill is referred to a specific committee(s) with jurisdiction over the proposed legislation. The bill may then be assigned to a more specialized subcommittee. Most deliberation is done by subcommittees.
- 3** Committee (or subcommittee) may hold hearings on the bill; this allows various groups to put their views on record.
- 4** A mark-up session occurs when hearings are completed. Legislators meet to debate and vote on amendments and thus “mark” the bill. If this occurs in a subcommittee, there is then a vote on whether to refer the bill to the full committee. The committee votes on whether to recommend the bill to the House or Senate.
- 5** If bill is recommended by a committee, it goes before the Senate or House for a vote. There may be debate and amendments. Bill is approved or defeated. If approved by House or Senate, it then goes to the other legislative chamber where the process begins again.
- 6** If both chambers pass the bill, there may be differences between the two versions. A conference committee made up of Representatives and Senators from both parties is then convened. This group works out the differences between the two bills. Once consensus is reached, the bill goes back to both chambers for a final vote.
- 7** If both chambers pass an agreed-upon version of the bill, it then goes to the White House for the President’s signature. The President may sign or veto the bill. If it is vetoed, the bill goes back to both chambers. A veto may be overridden by a two-thirds vote of the legislative chamber. Both chambers must pass the bill with a two-thirds vote for the bill to become law.
- 8** If the President does not sign a bill within 10 working days and Congress *is* in session, the bill automatically becomes law.
- 9** If the President does not sign a bill within 10 working days and Congress *is not* in session, the bill is subject to a “pocket veto” and dies.

#### **OVERVIEW OF THE FEDERAL STROKE TREATMENT AND ONGOING PREVENTION ACT (STOP STROKE ACT)**

The STOP Stroke Act was introduced in the U.S. Senate in late 2001. Though it had many cosponsors, the bill did not pass the 107th Congress and was reintroduced during the 108th Congress. A revised version of the bill had passed the House of Representatives but was not expected to pass the Senate in 2004. It is unclear whether it might be reintroduced in the 109th Congress.

**In its current draft, the STOP Stroke Act would have**

- Amended the Public Health Service Act to authorize the Secretary of the Department of Health and Human Services (HHS) to engage in activities designed to increase knowledge and awareness of stroke prevention and treatment.
- Required the HHS Secretary to conduct educational campaigns, maintain a national registry, and establish an information clearinghouse for the disease. The legislation would authorize \$5 million per year for fiscal years 2005 through 2009 for these activities.
- Authorized the HHS Secretary to make grants to states and other public and private entities to develop medical professional training programs and telehealth networks that would seek to coordinate stroke care and improve patient outcomes. The bill would authorize \$14 million in 2005 and \$70 million for 2005 through 2009 for the programs and for a study to evaluate the telehealth grant program.

**The STOP Stroke Act would have required states to use the grants to**

- 1 Identify entities with expertise in the delivery of high-quality stroke treatment;
- 2 Work with those entities to establish or improve telehealth networks to provide stroke treatment assistance and resources;
- 3 Inform emergency medical systems of the location of entities to facilitate the transport of individuals with stroke symptoms;
- 4 Establish networks to coordinate collaborative activities for stroke treatment;
- 5 Improve access to high-quality stroke care, especially for populations with a shortage of stroke care specialists or with a high incidence of stroke; and
- 6 Conduct performance and quality evaluations to identify activities that improve clinical outcomes for stroke patients.

States would have also been required to establish a consortium of public and private entities, including universities and academic medical centers, to carry out these activities. The bill prohibits a grant to a state or a consortium within a state with an existing telehealth network for improving stroke treatment unless the state or consortium agrees to use the existing telehealth network to achieve the purpose of the grant. The bill gives priority to any applicant that submits a plan demonstrating how the applicant will use the grant to improve access to high-quality stroke care for target populations.

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<b>TIMELINE OF THE STOP STROKE ACT 107th &amp; 108th Congresses of the United States</b>	
<b>DATE</b>	<b>MILESTONE</b>
<b>July 31, 2001</b>	S. 1274 introduced by Senators Edward Kennedy and Bill Frist
<b>December 6, 2001</b>	H.R. 3431 introduced by Reps. Lois Capps and Charles “Chip” Pickering, with 68 original cosponsors
<b>February 6, 2002</b>	S. 1274 passed by Senate and referred to the House Energy and Commerce Committee
<b>March 5, 2002</b>	S. 1274 referred to the House Energy and Commerce Subcommittee on Health
<b>April 30, 2002</b>	American Heart Association’s annual lobby day on Capitol Hill yielded 30 additional cosponsors for STOP Stroke Act
<b>June 6, 2002</b>	House Energy and Commerce Subcommittee on Health held hearing, “The NIH: Investing in Research to Prevent Disease,” to address S. 1274 and H.R. 3431
<b>September 2002</b>	Grassroots letter-writing campaign organized by STOP Stroke Coalition* to put House version of the Act to vote
<b>October 2002</b>	Adjournment of 107th Congress—House did not vote on STOP Stroke Act before adjournment (213 cosponsors)
<b>November 20, 2003</b>	Reintroduction of legislation in the Senate by Senators Thad Cochran and Edward Kennedy (S. 1909)
<b>December 8, 2003</b>	Reintroduction of legislation in the House of Representatives, as H.R. 3658, by Reps. Lois Capps and Charles “Chip” Pickering—Referred to the House Committee on Energy and Commerce
<b>December 17, 2003</b>	Referred to the Subcommittee on Health
<b>January 28, 2003</b>	Considered by Subcommittee, mark-up session and forwarded to Full Committee
<b>March 3, 2004</b>	Considered by Committee, mark-up session and voted to Whole House
<b>March 30, 2004</b>	Reported to whole House of Representatives for vote, placed on the calendar
<b>June 14, 2004</b>	H.R. 3658 passed by the House of Representatives (unanimous consent)
<b>June 15, 2004</b>	Received in Senate as S. 1909; referred to Committee on Health, Education, Labor and Pensions (HELP)—currently in Committee

\* STOP Stroke Coalition (American College of Radiology, American Academy of Neurological Surgeons, American College of Preventive Medicine, American Academy of Neurology, American Heart Association/ American Stroke Association, American Physical Therapy Association, American Society of Interventional & Therapeutic Neuroradiology, American Society of Neuroradiology, Association of American Medical Colleges, Boston Scientific, Congress of Neurological Surgeons, Emergency Nurses Association, Johnson & Johnson, National Stroke Association, Society of Interventional Radiology, Stroke Belt Consortium)

## MOCK TIMELINE FOR LEGISLATION PROCESS WITH SUGGESTED COMMUNICATION INTERVENTIONS FOR STATES

Failed and pending federal legislation often becomes the model for state legislation. Below is a mock timeline for a state stroke bill that would provide state funding to establish stroke centers and patient care protocols. For many of the milestones for legislation, there are potential communication interventions that can be offered to contribute to the legislature's debate and decision making. All these proposed action items comply with the AR-12 restrictions on lobbying.

Almost all states require that communication activities be coordinated through the health department commissioner's public information office. Before engaging in any of the activities outlined below, staff should be sure to work with the public information/legislative office to receive proper clearances.

Milestone	Potential Communication Intervention	Partner/Type of Communication
<b>Stroke bill simultaneously introduced in State Senate and Assembly</b>	Sponsor a legislative Stroke Prevention day. Consult the Start with Your Heart publication, "Hosting a Legislative Heart Health Day."	American Heart Association/ American Stroke Association
<b>Bills referred to committees on health for both houses</b>	Send committee staff copies of the State burden documents with letters offering background and testimony if desired.	Health department's public information office
<b>American Heart Association conducts annual advocacy day in Statehouse</b>	Give presentation on what state health department is doing to combat stroke.	American Heart Association/ American Stroke Association
<b>Health subcommittee holds hearing on stroke bill</b>	Provide testimony on problem of stroke in state and provide examples of other state successes.	Health department's legislative liaison office
<b>Grassroots letter-writing campaign</b>	Provide background materials to requestor.	State coalition/partners
<b>Considered by subcommittee, mark-up session and forwarded to full committee</b>	Consider working with your health department's legislative office to issue a statement from the director about the legislation.	American Heart Association/American Stroke Association
<b>Full committee holds mark-up session and refers bill for vote by full Assembly</b>	Let local media know that state health department and American Heart Association/American Stroke Association have data and experts who can discuss the state's burden of stroke.	Advocates champion for the legislation from organizations, such as the state chamber of commerce, neurological association, emergency medicine association.

(chart continues on next page)

Milestone	Potential Communication Intervention	Partner/Type of Communication
<b>Vote scheduled by full Assembly</b>		Champion for legislation informs coalition members, communication committee
<b>Bill passed by full Assembly, sent to state Senate for consideration</b>	Issue statement from health department director.	Health department's public information office
<b>Bill referred to conference committee to reconcile difference between Assembly and Senate versions</b>	Encourage partners to provide analysis of differences to conference committee staff.	American Heart Association/ American Stroke Association
<b>Conference bill voted on and approved by both houses</b>	Issue statement from state coalition.	Health department's public information office

### CASE STUDIES OF HOW STATE STAFF PARTICIPATED IN STROKE LEGISLATION IN THEIR STATES

#### Case Study: Primary Stroke Services Regulations in Massachusetts

To help influence policy and environmental change concerning stroke care in Massachusetts, the state program staff developed the Massachusetts Department of Public Health (MDPH) hospital licensure regulations authorizing the Department's Division of Health Care Quality to designate hospitals with primary stroke services. This example provides a model for other state programs to improve quality of care through regulations. The MDPH, nonprofit organizations, providers, and hospitals collaborated to develop these regulations.

The Coordinator of Stroke Initiatives in the Division of Community Health Promotion in the MDPH was the lead cardiovascular health staff person involved with drafting the regulations. Communication with different MDPH internal and external partners was integral to the success of regulation development. The Massachusetts approach to this policy intervention focuses on communication strategies.

<b>Goal</b>	To improve the delivery of stroke care in Massachusetts and have every resident within 30 minutes of designated hospital-based stroke services.
<b>Approach</b>	<p>Partnered with Division of Health Care Quality to draft regulations that create criteria for primary stroke services.</p> <p>Based regulations on Brain Attack Coalition's primary stroke center guidelines, including</p> <ul style="list-style-type: none"> <li>■ a stroke service director or coordinator;</li> <li>■ written care protocols;</li> <li>■ quality improvement of patient care management;</li> <li>■ continuing education for health professionals; and</li> <li>■ community education.</li> </ul> <p>Engaged state hospital association to solicit feedback from hospitals and gauge interest in designation.</p> <p>State Heart Disease and Stroke Prevention Program provides technical assistance to help hospitals achieve and maintain designation.</p>
<b>Process</b>	<p>Held open forums to allow hospitals to provide input before drafting regulations.</p> <p>Conducted hospital survey to analyze stroke capabilities and gauge interest in stroke-service designation.</p> <p>Encouraged feedback and testimony during mandatory open comment periods.</p>
<b>Partners</b>	<p>Emergency medical services.</p> <p>State affiliates of the American Heart Association/American Stroke Association.</p> <p>Massachusetts Hospital Association.</p> <p>Massachusetts Council of Community Hospitals.</p>
<b>Challenges</b>	<p>Some hospitals lack understanding about the acute stroke guidelines issued by the Brain Attack Coalition.</p> <p>Concern that designation might impact access to care and cause transfer of patients to hospitals farther from their homes.</p> <p>Concern that some of the requirements might be unattainable without significant investment of resources.</p>
<b>Results</b>	<p>Sixty-five of 72 hospitals have applied for stroke services designation.</p> <p>Groundwork is being built in state for implementing the Paul Coverdell National Acute Stroke Registry.</p>

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## ADDENDUM 1

### **Case Study: Florida Stroke Act**

Florida offers an excellent example for states that may have pending legislation to improve stroke-related policy and regulation. In 2004, Florida passed the Florida Stroke Act (S.B. 1590), which created the nation's first statewide emergency stroke system. The legislation will help ensure that EMS transports stroke victims to a hospital that is capable of providing the latest stroke treatments. In addition, the bill requires the development of criteria for primary and comprehensive stroke centers. The American Heart Association/American Stroke Association (AHA/ASA) helped lead the coalition of groups and organizations that advocated for the successful passage of the act.

Although the Florida Department of Health did not spearhead the creation of S.B. 1590, it was and continues to be critically important to the success of the overall effort. The following summary of an interview with the Florida-Puerto Rico Affiliate of AHA offers some guidance for how states can understand and help advance stroke legislation in their states.

<b>Goal</b>	To strengthen the chain of stroke survival in Florida through legislation establishing statewide stroke systems for EMS services and hospitals to properly identify, transport, and treat stroke victims.
<b>Approach</b>	<p>Identified crucial partners needed to push for a statewide emergency stroke system.</p> <p>Gained support and buy-in from large hospital systems, EMS systems, and state regulatory agencies overseeing health systems in the state.</p> <p>Involved Florida's Agency for Health Care Administration to create criteria for primary and comprehensive stroke centers.</p> <p>Engaged the Florida Department of Health to develop a sample stroke triage assessment tool for all EMS providers.</p> <p>Planned for legislation based on objectives that were laid out by the Florida-Puerto Rico Affiliate of AHA and that were also workable for key stakeholders and regulatory agencies.</p>
<b>Process</b>	<p>Held legislative drafting meetings to which all stakeholders were invited to contribute to the development of the legislation.</p> <p>Planned legislative briefing at the beginning of session to educate legislators and their staff about the bill.</p> <p>Organized lobby day during which nearly 100 volunteers traveled to Tallahassee to meet with legislators and gain the support necessary for the bill's success.</p>
<b>Partners</b>	<p>Florida-Puerto Rico Affiliate of AHA.</p> <p>The Florida Association of EMS Medical Directors.</p> <p>The Florida College of Emergency Physicians.</p> <p>The Florida Hospital Association.</p> <p>Large hospital systems in the state.</p>
<b>Challenges</b>	<p>States had focused most of their stroke activities in the area of prevention and had to evaluate their time and resources to begin the process of developing this new stroke emergency system.</p> <p>Concern that some emergency rooms in sparsely populated areas of the state would not have the resources to adapt to the legislation.</p> <p>Concern that stakeholders and partners would have differing ideas on what to include in the bill.</p> <p>Concern that methods in place might be unable to adapt logistically to a new system.</p>
<b>Results</b>	<p>In 2004, the bill passed and has drastically changed emergency stroke services in the State of Florida.</p> <p>Groundwork is in place for consideration of implementing the Paul Coverdell National Acute Stroke Registry in the state.</p>

# ADDENDUM

*Chapter 3: Expanding Reach and  
Influence Through Partnerships*

*chapter*

3

ADDENDUM 1

## Stroke Materials Resource Guide

This compilation of stroke resources presents materials from national organizations concerned with stroke prevention and care. Some materials are free, and others can be purchased.

### **RESOURCES ARE ORGANIZED BY**

- Consumer Materials on Risk Prevention, Signs, and Symptoms of Stroke
- Health Educator/Program Planning Resources
- Materials for Health Care Professionals
- Materials for Stroke Survivors
- Materials for Caregivers
- Materials for Spanish-Speaking Audiences

Acronyms used can be found on page 3.21.

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## ADDENDUM 1

## CONSUMER MATERIALS ON RISK PREVENTION, SIGNS, AND SYMPTOMS OF STROKE

Title	Authoring Organization & Publication Date	Description of Stroke Material	Cost and Ordering Information
<b>Aneurysm Answers</b>	NSA	A fact sheet in Q&A format detailing the symptoms and diagnosis of stroke and aneurysms.	\$0.25 per fact sheet To order, call 1-800-STROKES.
<b>Are You at Risk for Stroke?</b>	NSA	A two-sided self-assessment questionnaire to identify personal stroke risk factors. Provides no individual analysis or risk reduction plan. Directs at-risk participants to consult with their physicians.	\$15 for a pack of 100 To order, call 1-800-STROKES.
<b>Be Smoke Free</b>	NSA	A fact sheet summarizing smoking and stroke risk while confronting the excuses smokers might make while attempting to quit.	\$0.25 per fact sheet To order, call 1-800-STROKES.
<b>Beat the Odds: Reduce Your Chances of AF-Related Stroke</b>	NSA	Tri-fold brochure designed to educate consumers about atrial fibrillation (AF) and stroke related to AF.	Free To order, call 1-800-STROKES.
<b>Brain Basics: Preventing Stroke</b>	NINDS	An eight-page brochure that details healthy living habits for preventing stroke. Included are charts for scoring risk of stroke.	Free To order, visit <a href="http://www.ninds.nih.gov">www.ninds.nih.gov</a> or call 1-800-352-9424.
<b>Check Your Pulse America—Atrial Fibrillation</b>	NSA	A brochure describing the “Check your Pulse America” program and its goal of detecting atrial fibrillation, which if detected early can be treated to reduce the risk of stroke.	\$0.25 per brochure To order, call 1-800-STROKES.

**CONSUMER MATERIALS ON RISK PREVENTION, SIGNS, AND SYMPTOMS OF STROKE**

<b>Title</b>	<b>Authoring Organization &amp; Publication Date</b>	<b>Description of Stroke Material</b>	<b>Cost and Ordering Information</b>
<b>Cholesterol and Stroke</b>	NSA	A fact sheet in Q&A format explaining the effect of cholesterol on stroke risks as well as cholesterol measurement.	\$0.25 per fact sheet To order, call 1-800-STROKES.
<b>Complete Guide to Stroke</b>	NSA	A comprehensive stroke reference tool that includes statistics, basic facts, symptoms, prevention treatment, and recovery. Includes a full glossary and references.	\$20 per guide To order, call 1-800-STROKES.
<b>Hello, My Name Is Stroke. Learn to Recognize a Stroke—Because Time Lost Is Brain Lost</b>	AHA/ASA June 2005	Poster with tips on how to recognize stroke.	For more information, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Hemorrhagic Stroke</b>	NSA	A detailed fact sheet defining hemorrhagic stroke, its origins, symptoms, and treatment.	\$0.25 per fact sheet To order, call 1-800-STROKES.
<b>High Blood Pressure and Stroke</b>	AHA/ASA May 2004	Brochure about controlling key risk factors for stroke.	\$18 for a pack of 25 To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Know Stroke Information Card</b>	NINDS April 2004	A two-sided wallet card that includes the signs of stroke as well as a place to record blood pressure, cholesterol, and weight statistics at regular doctor visits.	Free To order, visit <a href="http://www.ninds.nih.gov">www.ninds.nih.gov</a> or call 1-800-352-9424.

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## ADDENDUM 1

## CONSUMER MATERIALS ON RISK PREVENTION, SIGNS, AND SYMPTOMS OF STROKE

Title	Authoring Organization & Publication Date	Description of Stroke Material	Cost and Ordering Information
<b>Know Stroke. Know the Signs. Act in Time.</b>	NINDS October 2000	Brochure designed to educate consumers about the importance of knowing symptoms of stroke and acting immediately to get treatment.	Free  For more information, visit <a href="http://www.ninds.nih.gov">www.ninds.nih.gov</a> or call 1-800-352-9424.
<b>Learn to Recognize a Stroke—Because Time Lost Is Brain Lost</b>	AHA/ASA November 2003	Card for wallet.	\$13 for a pack of 50  To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Learn to Recognize a Stroke—Because Time Lost Is Brain Lost</b>	AHA/ASA November 2003	Postcard with tips for how to recognize stroke.	For more information, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Learn to Recognize the Warning Signs of a Stroke</b>	AHA/ASA May 2003	Two-sided bookmark spotlights warning signs and risk factors of stroke; provides ASA information.	\$11 for a pack of 100  To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Learn to Recognize the Warning Signs of a Stroke</b>	AHA/ASA	Poster with tips for how to recognize stroke.	\$15 for a pack of 5  To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Reducing Risk</b>	NSA	A two-sided fact sheet on reducing risk and recognizing the symptoms of stroke. The fact sheet includes the NSA's stroke prevention guidelines.	\$0.25 per fact sheet  To order, call 1-800-STROKES.

**CONSUMER MATERIALS ON RISK PREVENTION, SIGNS, AND SYMPTOMS OF STROKE**

<b>Title</b>	<b>Authoring Organization &amp; Publication Date</b>	<b>Description of Stroke Material</b>	<b>Cost and Ordering Information</b>
<b>Search Your Heart: Bookmark</b>	AHA/ASA	Set of four bookmarks, each with health-related messages with information on stroke.	\$13 for a pack of 200 To order, call 1-800-611-6083.
<b>Smoking and Your Risk of Stroke</b>	AHA/ASA August 2002	Brochure providing information on how smoking significantly increases risk of stroke.	To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Stroke and High Blood Pressure</b>	NSA	A four-page booklet introducing blood pressure and its relation to stroke. Blood pressure medications are also addressed.	\$0.25 per brochure To order, call 1-800-STROKES.
<b>Stroke and High Blood Pressure</b>	NSA	One-page fact sheet designed to educate consumers about the link between stroke and high blood pressure.	\$0.25 per fact sheet To order, call 1-800-STROKES.
<b>Stroke Is America's No. 3 Killer</b>	AHA/ASA May 2003	Bookmark with facts on stroke risk and signs and symptoms of stroke.	For more information, call 1-800-611-6083.
<b>Stroke Patient Education Toolkit</b>	AHA/ASA	A comprehensive kit that contains reproducible fact sheets, presentations, awareness materials, a video, CD-ROM, and more for stroke prevention and life after stroke.	\$54.95 For more information, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.

**ADDENDUM 1: STROKE MATERIALS RESOURCE GUIDE****CONSUMER MATERIALS ON RISK PREVENTION, SIGNS, AND SYMPTOMS OF STROKE**

<b>Title</b>	<b>Authoring Organization &amp; Publication Date</b>	<b>Description of Stroke Material</b>	<b>Cost and Ordering Information</b>
<b>Stroke Risk Factors and Warning Signs</b>	NINDS May 1999	A two-sided laminated bookmark listing risk factors and warning signs.	Free  To order, visit <a href="http://www.ninds.nih.gov">www.ninds.nih.gov</a> or call 1-800-352-9424.
<b>Stroke Risk Reduction: A Healthy Nutrition Guide</b>	NSA	A two-page fact sheet with stroke prevention guidelines and tips for healthy nutrition.	\$0.25 per guide. To order, call 1-800-STROKES.
<b>Stroke Risk Scorecard</b>	NSA	Oversized card with tips for reducing stroke risk, signs and symptoms of stroke, and scoring chart for personal assessment of stroke risk.	For more information, call 1-800-STROKES.
<b>Stroke Warning Signs Magnet</b>	AHA/ASA	Magnet shaped like a stop sign.	\$45 for a pack of 50  To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Understanding Stroke</b>	AHA/ASA	A brochure explaining stroke and how to reduce risk. Focuses on stroke prevention and contains the latest statistics on stroke.	To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Understanding the Link Between PFO and Stroke</b>	NSA	A tri-fold brochure for those concerned about patent foramen ovale (PFO) and its relation to stroke.	\$0.25 per brochure  To order, call 1-800-STROKES.

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## ADDENDUM 1

**CONSUMER MATERIALS ON RISK PREVENTION, SIGNS, AND SYMPTOMS OF STROKE**

<b>Title</b>	<b>Authoring Organization &amp; Publication Date</b>	<b>Description of Stroke Material</b>	<b>Cost and Ordering Information</b>
<b>Warning Signs of Stroke</b>	AHA/ASA March 2004	Brochure focusing on warning signs of stroke and heart attack and necessary actions in case of each.	\$26 for a pack of 50  To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>What Is AVM?</b>	AHA/ASA	Downloadable booklet that discusses the definition, causes, and potential treatments for arteriovenous malformation (AVM).	Downloadable PDF file <a href="http://www.strokeassociation.org">www.strokeassociation.org</a>
<b>What You Should Know About Cerebral Aneurysm</b>	AHA/ASA	In-depth booklet explaining aneurysms and potential treatments for them.	Download at <a href="http://www.strokeassociation.org">www.strokeassociation.org</a> .
<b>When It Comes to Strokes, Every Second Counts</b>	Tri-State Stroke Network May 2004	Brochure giving general information on stroke risks and prevention.	For more information, visit <a href="http://www.startwithyourheart.com">www.startwithyourheart.com</a> .
<b>Women in Your Life</b>	NSA	16-page booklet designed to educate consumers about the effects of stroke on women. It includes a stroke-risk evaluation.	\$1.50 per booklet  To order, call 1-800-STROKES.

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## ADDENDUM 1

## HEALTH EDUCATOR/PROGRAM PLANNING RESOURCES

Title	Authoring Organization & Publication Date	Description of Stroke Material	Cost and Ordering Information
<b>Atlas of Heart Disease and Stroke</b>	CDC in collaboration with WHO	Addresses heart disease and stroke in six parts: cardiovascular disease; risk factors; the burden; action; the future and the past; and world tables. Topics addressed through pictures and a few words. Designed for use by policy makers, national and international organizations, health professionals, and the general public.	The Atlas may be downloaded or ordered from the Website of the World Health Organization at <a href="http://www.who.int/cardiovascular_diseases/resources/atlas/en">www.who.int/cardiovascular_diseases/resources/atlas/en</a>
<b>Atlas of Stroke Mortality: Racial, Ethnic, and Geographic Disparities in the United States.</b>	CDC, 2003	Provides county-level maps of stroke for the five largest racial and ethnic groups in the United States.	Online at <a href="http://www.cdc.gov/cvh/maps/strokeatlas/atlas.htm">www.cdc.gov/cvh/maps/strokeatlas/atlas.htm</a>  For free copy send request to <a href="mailto:ccdinfo@cdc.gov">ccdinfo@cdc.gov</a> or call 1-888-232-2306.
<b>Atlas of Stroke Hospitalizations</b>	CDC, 2005	Will provide additional state and county-based data on stroke.	Will be online in 2005 at <a href="http://www.cdc.gov/cvh">www.cdc.gov/cvh</a>
<b>Brain Attack Poster</b>	NSA	Features Brain Attack art—illustration of a stroke in progress, with a prevention message; also available in “Emergency/Call 9-1-1” version (22" x 32").	\$5 per poster  To order, call 1-800-STROKES.
<b>Community Stroke Prevention Screening Guide</b>	NSA	Comprehensive guide on conducting NSA's stroke-screening protocols. Includes samples of materials and a one-year free subscription to NSA's bimonthly magazine, Stroke Smart.	\$25 per screening guide  To order, call 1-800-STROKES.
<b>Heart and Stroke Statistical Update</b>	AHA	Data on risk factors, nutrition, quality of care, medical procedures, and economic cost.	Available at <a href="http://www.americanheart.org/presenter.jhtml?identifier=3000090">www.americanheart.org/presenter.jhtml?identifier=3000090</a>

## HEALTH EDUCATOR/PROGRAM PLANNING RESOURCES

Title	Authoring Organization & Publication Date	Description of Stroke Material	Cost and Ordering Information
<b>High Blood Pressure</b>	CDC	Fact sheet that includes a map and statistics about high blood pressure in the United States.	Available at <a href="http://www.cdc.gov/cvh/library/fs_bloodpressure.htm">www.cdc.gov/cvh/library/fs_bloodpressure.htm</a> Also available in Spanish.
<b>Know Stroke Community Education Training Kit</b>	NINDS May 2001	A boxed kit of materials for use in planning and conducting a stroke awareness event. The kit includes posters, patient education brochures, and an award-winning 8-minute video featuring interviews with experts and stroke patients. It can be used to train health educators on stroke education.	Single copies are free. Each additional kit is \$10.  To order, visit <a href="http://www.ninds.nih.gov">www.ninds.nih.gov</a> or call 1-800-352-9424.
<b>Know the Signs and Symptoms of a Stroke</b>	CDC	Fact sheet about signs of a stroke and about the efforts of CDC to reduce the stroke burden.	Available at <a href="http://www.cdc.gov/cvh/library/fs_strokesigns.htm">www.cdc.gov/cvh/library/fs_strokesigns.htm</a> Also available in Spanish.
<b>Know the Symptoms Poster</b>	NSA	Full-color illustrations depicting stroke symptoms with "Call 9-1-1" message. Reversible poster—English on one side, Spanish on the other (18" x 24").	\$5 per poster To order, call 1-800-STROKES.
<b>Let's Talk About Stroke, Patient Information Sheets</b>	AHA/ASA	A series of downloadable patient information sheets.	Download at <a href="http://www.strokeassociation.org">www.strokeassociation.org</a> .
<b>Organizing Stroke Screenings</b>	AHA/ASA	This 22-page guide offers instructions needed to hold a successful stroke screening in a community. The guide also includes a sample Stroke Risk Assessment Form for screenings.	Download at <a href="http://www.strokeassociation.org">www.strokeassociation.org</a> .

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## HEALTH EDUCATOR/PROGRAM PLANNING RESOURCES

Title	Authoring Organization & Publication Date	Description of Stroke Material	Cost and Ordering Information
<b>Preventing Heart Disease and Stroke: Addressing the Nation's Leading Killers</b>	CDC	At-a-Glance report on CDC's and states' efforts to meet the challenges of heart disease and stroke.	Available at <a href="http://www.cdc.gov/nccdphp/aag/aag_cvd.htm">www.cdc.gov/nccdphp/aag/aag_cvd.htm</a>
<b>Promising Practices in Chronic Disease Prevention and Control: A Public Health Framework for Action</b>	CDC	Sources of strategies, methods, tools, and training opportunities in chronic disease prevention.	Available at <a href="http://www.cdc.gov/nccdphp/promising_practices/index.htm">www.cdc.gov/nccdphp/promising_practices/index.htm</a>
<b>State Heart Disease and Stroke Prevention Program Addresses High Blood Pressure</b>	CDC	Fact sheet on what states are doing and can do to ease the burden of stroke by educating the public about control of high blood pressure.	Available at <a href="http://www.cdc.gov/cvh/library/fs_state_hbp.htm">www.cdc.gov/cvh/library/fs_state_hbp.htm</a>
<b>State Heart Disease and Stroke Prevention Program Addresses Stroke</b>	CDC	Fact sheet on state plans and stroke interventions through CDC-funded efforts in state programs.	Available at <a href="http://www.cdc.gov/cvh/library/fs_state_stroke.htm">www.cdc.gov/cvh/library/fs_state_stroke.htm</a>
<b>State Heart Disease and Stroke Prevention Program in Health Care Settings to Address Heart Disease and Stroke</b>	CDC	Fact sheet includes example of CDC-funded state program activities to address cardiovascular disease disparities in health care settings.	Available at <a href="http://www.cdc.gov/cvh/library/fs_state_healthcare.htm">www.cdc.gov/cvh/library/fs_state_healthcare.htm</a>
<b>Stroke Fact Sheet</b>	CDC	Information on stroke networks and registries and CDC activities to reduce stroke burden.	Available at <a href="http://www.cdc.gov/cvh/library/fs_stroke.htm">www.cdc.gov/cvh/library/fs_stroke.htm</a>  Also available in Spanish.

## HEALTH EDUCATOR/PROGRAM PLANNING RESOURCES

Title	Authoring Organization & Publication Date	Description of Stroke Material	Cost and Ordering Information
<b>Stroke Risk Appraisal Form and Risk Reduction Plan</b>	NSA	Two-sided screening form used to assess stroke risk. Four-page participant take-home form designed to identify risks and follow-up actions to educate, motivate, and reinforce stroke risk reduction. Includes space for referral information.	\$5 for appraisal form and risk reduction plan, also available in Spanish.  To order, call 1-800-STROKES.
<b>Stroke: Patient Education Toolkit</b>	AHA/ASA	This kit contains fact sheets, presentations, awareness materials, a video, CD-ROM, and more for stroke prevention and life after stroke.	For more information, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Stroke: When Minutes Matter Kit</b>	AHA/ASA	Video, booklet, and bookmarks designed for senior center leaders to educate clients on recognizing and responding to stroke.	\$8.75 per package  To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Transient Ischemic Attack</b>	NSA	Tri-fold brochure designed to educate consumers about transient ischemic attacks (TIAs), or mini-strokes, and to emphasize stroke prevention.	\$0.25 per brochure  To order, call 1-800-STROKES.
<b>Understanding Stroke Slides</b>	NSA	Twelve color slides of illustrations in NSA stroke booklet.	\$25 for 12 slides  To order, call 1-800-STROKES.

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## ADDENDUM 1

## MATERIALS FOR HEALTH CARE PROFESSIONALS

Title	Authoring Organization & Publication Date	Description of Stroke Material	Cost and Ordering Information
<b>Acute Stroke Continuing Education AHA/ASA</b>	October 2003	Continuing education book for independent study for physicians, nurses, and emergency medical technicians.	\$35 per book To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>American Stroke Association's Online NIH Stroke Scale Training</b>	AHA/ASA	Online version of the NIH Stroke Scale training. Offers training on how to perform the NIH Stroke Scale and continuing education credits for those who complete and pass the tests at the end.	Free For more information, visit <a href="http://www.asatrainingcampus.org">www.asatrainingcampus.org</a> .
<b>Are You Recognized Yet? Heart/Stroke Recognition Program for Specialists and Primary Care Physicians</b>	AHA/ASA	Program with the National Council on Quality Assessment for physicians to apply for recognition as providing high-quality cardiovascular and stroke care. This program evaluates physicians on how they comply with evidence-based guidelines for providing heart health care.	Free For more information visit <a href="http://www.ncqa.org/hsrp">www.ncqa.org/hsrp</a> or call 1-800-275-7585.
<b>ASTP—Acute Stroke Treatment Program</b>	AHA/ASA	ASTP serves as a checklist for ensuring the delivery of high-quality and efficient care to acute stroke patients. ASTP is the first step to prepare a hospital for <i>Get With the Guidelines—Stroke</i> implementation.	For more information, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Cincinnati Prehospital Stroke Scale/ Algorithm for Suspected Stroke</b>	AHA/ASA June 2003	Card for emergency medical technicians and paramedics to quickly assess the severity of a potential stroke.	\$10 per stroke scale To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Get with the Guidelines—Stroke. Getting Started</b>	AHA/ASA April 2004	Brochure offering highlights of <i>Get With the Guidelines—Stroke</i> program for hospitals. Provides overview and rationale for hospital participation. Potentially helpful to hospitals seeking JCAHO certification as a stroke center.	For more information, visit <a href="http://www.strokeassociation.org/getwiththeguidelines">www.strokeassociation.org/getwiththeguidelines</a> or <a href="mailto:guidelineinfo@heart.org">guidelineinfo@heart.org</a> .

## MATERIALS FOR HEALTH CARE PROFESSIONALS

Title	Authoring Organization & Publication Date	Description of Stroke Material	Cost and Ordering Information
<b>Hospital Stroke Emergency Response Reminder</b>	NSA	A poster (9" x 12") to remind hospital staff that a stroke trial is being conducted in their institution. Customize with stroke team beeper/phone number.	\$1 per poster To order, call 1-800-STROKES.
<b>Joint Commission's Certificate of Distinction for Primary Stroke Centers</b>	AHA/ASA	Brochure providing overview of JCAHO stroke center certification program. Includes a mail-back card for more information.	\$35.00 for a pack of 100 To order, visit <a href="http://www.jcaho.org">www.jcaho.org</a> .
<b>NIH Stroke Scale Booklet and DVD Training</b>	NINDS February/June 2004	The NIH Stroke Scale provides a common language for assessing the severity of a patient's stroke. This portable, pocket-sized, laminated reference booklet is for use by health professionals who administer the NIH Stroke Scale to patients. The DVD encourages health care professionals to be certified in use of the NIH Stroke Scale.	Booklet is free; \$50 per training DVD To order, visit <a href="http://www.ninds.nih.gov">www.ninds.nih.gov</a> or call 1-800-352-9424.
<b>NIH Stroke Scale Exam</b>	NSA	NSA provides certification on the NIH Stroke Scale. Health care professionals who request the package receive proctor instruction, exam transmittal form, materials references, exam in scannable format, letter with exam score, passing certificate (if applicable), and registration into NSA's NIH Stroke Scale Database.	\$25 per exam To order, call 1-800-STROKES.
<b>The Paul Coverdell National Acute Stroke Registry</b>	CDC	A fact sheet on CDC-funded stroke registries, their history, and locations.	Available at <a href="http://www.cdc.gov/cvh/stroke_registry.htm">www.cdc.gov/cvh/stroke_registry.htm</a>
<b>Proceedings of a National Symposium on Rapid Identification and Treatment of Acute Stroke</b>	NINDS August 1997	A monograph that lists recommendations developed in 1996 by representatives from more than 50 organizations interested in the care of stroke patients. Individual papers identify the best ways to reorganize health care systems to increase availability of thrombolytic treatment for stroke.	Free To order, visit <a href="http://www.ninds.nih.gov">www.ninds.nih.gov</a> or call 1-800-352-9424.

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## ADDENDUM 1

## MATERIALS FOR HEALTH CARE PROFESSIONALS

Title	Authoring Organization & Publication Date	Description of Stroke Material	Cost and Ordering Information
<b>Risk CD-ROM</b>	NSA	A user-friendly, computer-based-tool to profile risks in a clinical or health fair setting. This CD-ROM is based on data from the Framingham Study and offers a stroke knowledge quiz and stroke facts presentation.	\$90 per CD-ROM To order, call 1-800-STROKES.
<b>Starting Now</b>	AHA/ASA	Offers rehabilitation health care professionals the tools necessary to implement a five-lesson patient education course for stroke survivors and their families.	For more information, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Stroke Prevention Risk Profile</b>	NSA	Assessment form designed to be mailed in for a personal stroke risk profile and prevention plan. Requires minimal staffing and planning. Available for individuals, hospitals, and other organizations. Results are processed and mailed in 48 hours.	\$10 per profile To order, call 1-800-STROKES.
<b>Stroke Prevention Slide Presentation Kit</b>	NSA	Includes 30 slides and accompanying text on management of patients at risk for stroke. Ideal for presentations to general practice physicians.	\$35 per kit. To order, call 1-800-STROKES.
<b>Stroke Risk Assessment Form</b>	AHA/ASA	The form is an 8.5" x 11" carbonless four-part form to be used by health care professionals when they are evaluating a person's stroke risk.	Download at <a href="http://strokeassociation.org">http://strokeassociation.org</a> .

**MATERIALS FOR HEALTH CARE PROFESSIONALS**

<b>Title</b>	<b>Authoring Organization &amp; Publication Date</b>	<b>Description of Stroke Material</b>	<b>Cost and Ordering Information</b>
<b>Stroke/Brain Attack Slide Presentation Syllabus</b>	NSA	Includes 125 completely revised slides, a presentation CD-ROM, and accompanying printed pages with suggested narrative. Newly expanded topics include primary and secondary prevention, acute treatment, and rehabilitation.	\$160 per presentation  To order, call 1-800-STROKES.
<b>Stroke: Prehospital Care</b>	AHA/ASA	CD-ROM designed to increase prehospital providers' knowledge about stroke. The module teaches participants about the pathophysiology, risk factors, differential diagnosis, recognition, assessment, and management of a potential stroke.	\$35 per CD-ROM  To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Task Force Reports from the 2002 NINDS Symposium "Improving the Chain of Recovery for Acute Stroke in Your Community"</b>	NINDS September 2003	This volume presents conclusions reached by experts charged with defining goals in six critical areas: public recognition and rapid response to stroke; a hospital's optimal level of care; professional education; templates for organizing stroke triage; community incentives for enhancing stroke care; and provider support systems for treating acute stroke. The task force reports can be used as a model for structuring a stroke symposium to bring together relevant players to address barriers to improvements in rates of people treated for stroke.	Free  To order, visit <a href="http://www.ninds.nih.gov">www.ninds.nih.gov</a> or call 1-800-352-9424.

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## ADDENDUM 1

## MATERIALS FOR STROKE SURVIVORS

Title	Authoring Organization & Publication Date	Description of Stroke Material	Cost and Ordering Information
<b>Courage: Poems &amp; Positive Thoughts for Stroke Survivors</b>	NSA	83-page book with words of inspiration for survivors and caregivers.	\$10.95 per book To order, call 1-800-STROKES.
<b>Discovery Circles: NSA's Guide to Organizing and Facilitating Stroke Support Groups</b>	NSA	This 213-page detailed manual describes the support group structure and the facilitator's role.	\$39 per manual. To order, call 1-800-STROKES.
<b>Living with Disability After Stroke</b>	AHA/ASA November 2003	30-page educational booklet that gives stroke survivors practical tips for daily life.	\$3 per booklet To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Memory Issues After Stroke</b>	NSA	A tri-fold brochure on the symptoms, diagnosis, and treatment of vascular dementia, the decline in mental abilities for some who have suffered a stroke.	\$0.25 per brochure To order, call 1-800-STROKES.
<b>Mobility: Issues Facing Stroke Survivors and Their Families</b>	NSA	A booklet for survivors and caregivers on understanding stroke paralysis and spasticity. Treatments are addressed as well.	\$0.25 per brochure To order, call 1-800-STROKES.

## MATERIALS FOR STROKE SURVIVORS

Title	Authoring Organization & Publication Date	Description of Stroke Material	Cost and Ordering Information
<b>Moving Forward After Stroke—A Financial Education for Survivors</b>	AHA/ASA	Book published with National Endowment for Financial Education focused on helping stroke survivors understand the issues they will face post-stroke and providing tips for confronting them.	For more information, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Post-Stroke Rehabilitation</b>	NINDS August 2002	A fact sheet to help survivors, their families, and their caregivers understand the importance of rehabilitation after a stroke and identify the best types of services for their particular situation. Included are resources for more information about the facts of stroke.	Free  To order, visit <a href="http://www.ninds.nih.gov">www.ninds.nih.gov</a> or call 1-800-352-9424.
<b>Sex After Stroke</b>	AHA/ASA August 2003	Brochure that serves as a guide to intimacy after stroke.	\$27 for a pack of 25  To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Stroke Connection Magazine</b>	AHA/ASA	Magazine on stroke issues for caregivers and survivors.	Free subscription  For more information, visit <a href="http://www.strokeassociation.org">www.strokeassociation.org</a> .
<b>Stroke: Hope Through Research</b>	NINDS June 1999	A 66-page booklet designed to educate the public about risk factors, causes, symptoms, and treatments for stroke. Included are descriptions of the different types of stroke, a glossary of stroke terms, highlights of current basic and clinical research.	Free  To order, visit <a href="http://www.ninds.nih.gov">www.ninds.nih.gov</a> or call 1-800-352-9424.

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## ADDENDUM 1

## MATERIALS FOR CAREGIVERS

Title	Authoring Organization & Publication Date	Description of Stroke Material	Cost and Ordering Information
<b>Being a Stroke Family Caregiver</b>	AHA/ASA March 2003	Brochure providing overview of issues caregivers face, including financial and emotional burdens.	\$16 for a pack of 25  To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Caring for Someone with Aphasia</b>	AHA/ASA 2003	Guide to caring for someone with aphasia, a common effect of stroke that affects a person's ability to communicate.	For more information, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>How a Stroke Affects Behavior</b>	AHA/ASA March 2004	Brochure for caregivers on understanding the physical and emotional changes that stroke can cause.	\$19 for a pack of 25  To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>Moving Forward After Stroke—A Financial Education for Caregivers</b>	AHA/ASA	Book published with National Endowment for Financial Education focused on helping stroke survivors understand employee rights, disability benefits, adapting the home, and other issues.	For more information, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.

## MATERIALS FOR CAREGIVERS

Title	Authoring Organization & Publication Date	Description of Stroke Material	Cost and Ordering Information
<b>November Days</b>	NSA	A 255-page book about a caregiver and her struggle with a loved one's stroke.	\$12.95 per book To order, call 1-800-STROKES.
<b>Stroke Connection Magazine</b>	AHA/ASA July/August 2004	Magazine on stroke issues for caregivers and survivors.	Free subscription For more information, visit <a href="http://www.strokeassociation.org">www.strokeassociation.org</a> .
<b>Successful Support Groups</b>	AHA/ASA	A comprehensive 30-page booklet that gives guidance for starting and maintaining a viable stroke support group.	Download at <a href="http://www.strokeassociation.org">www.strokeassociation.org</a> .
<b>Ted's Stroke: The Caregiver's Story</b>	NSA	A 175-page book providing personal experiences, guidance, and tips for caregivers.	\$14.95 per book To order, call 1-800-STROKES.
<b>The Magic of Humor in Caregiving</b>	NSA	A dynamic teaching tool focusing on the necessity of humor in daily caregiving interaction.	\$9.95 per kit To order, call 1-800-STROKES.

## MATERIALS FOR SPANISH-SPEAKING AUDIENCES

Title	Authoring Organization & Publication Date	Description of Stroke Material	Cost and Ordering Information
<b>Ataque Cerebral</b>	NINDS September 2002	A Spanish-language brochure designed to educate consumers about the importance of knowing the symptoms of stroke and acting immediately to get treatment.	Free  To order, visit <a href="http://www.ninds.nih.gov">www.ninds.nih.gov</a> or call 1-800-352-9424.
<b>Brain Basics: Previendo la Apoplejia (Stroke)</b>	NINDS	An eight-page Spanish-language brochure that details healthy living habits for preventing stroke. Included are charts for scoring risk of stroke.	Free  To order, visit <a href="http://www.ninds.nih.gov">www.ninds.nih.gov</a> or call 1-800-352-9425.
<b>De Corazon a Corazon</b>	AHA/ASA 2003	Faith-based educational program designed to motivate participants to have their risk factors for stroke evaluated.	\$67 per program kit  To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>El Ataque Cerebral: Reducción del Riesgo y Reconocimiento de los Sintomas</b>	NSA	A Spanish-language fact sheet designed to educate consumers about risk factors and warning signs of stroke.	\$0.25 per fact sheet  To order, call 1-800-STROKES.
<b>Accidente Cerebrovascular: Esperanza en la Investigación</b>	NINDS December 2000	A 66-page booklet designed to educate the public about the risk factors, causes, symptoms, and treatments for stroke. Included are descriptions of the different types of stroke, a glossary of stroke terms, highlights of current basic and clinical research.	Free  To order, visit <a href="http://www.ninds.nih.gov">www.ninds.nih.gov</a> or call 1-800-352-9426.
<b>¿Ha Oído el Último? (Have You Heard the Latest?)</b>	AHA/ASA	This Spanish-language brochure provides a clear and concise overview of stroke, including major breakthroughs in its treatment.	To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.

## MATERIALS FOR SPANISH-SPEAKING AUDIENCES

Title	Authoring Organization & Publication Date	Description of Stroke Material	Cost and Ordering Information
<b>Hablemos de los Ataques al Cerebro</b>	ASA/AHA	Spanish-language fact sheets to help reduce risk and understand stroke.	Free To download, visit <a href="http://www.strokeassociation.org">www.strokeassociation.org</a> .
<b>Hello Stroke—Bilingual</b>	AHA/ASA	Bilingual stroke poster. One side is English, and the other side is Spanish.	To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.
<b>La Rehabilitación después de una Apoplejía</b>	NINDS March 2003	A Spanish-language fact sheet to help survivors, their families, and their caregivers understand the importance of rehabilitation after a stroke and identify the best types of services for their particular situation. Included are resources for additional stroke information.	Free To order, visit <a href="http://www.ninds.nih.gov">www.ninds.nih.gov</a> or call 1-800-352-9428.
<b>Los Factores de Riesgo</b>	NINDS May 1999	A two-sided laminated bookmark listing risk factors and warning signs in Spanish.	Free To order, visit <a href="http://www.ninds.nih.gov">www.ninds.nih.gov</a> or call 1-800-352-9427.
<b>Para Comprender los Ataques al Cerebro (Understanding Stroke)</b>	AHA/ASA February 2004	Brochure explaining stroke and how to reduce risk. In both English and Spanish.	\$26 for a pack of 50 To order, visit <a href="http://www.aha.channing-bete.com">www.aha.channing-bete.com</a> or call 1-800-611-6083.

## Acronyms used:

<b>AF</b>	atrial fibrillation
<b>AHA</b>	American Heart Association
<b>ASA</b>	American Stroke Association
<b>AVM</b>	arteriovenous malformation
<b>CDC</b>	Centers for Disease Control and Prevention
<b>JCAHO</b>	Joint Commission on Accreditation of Healthcare Organizations

<b>NINDS</b>	National Institute of Neurological Disorders and Stroke
<b>NSA</b>	National Stroke Association
<b>PFO</b>	patent foramen ovale
<b>Q&amp;A</b>	Questions and answers
<b>TIA</b>	transient ischemic attack
<b>WHO</b>	World Health Organization

# ADDENDUM

*Chapter 4: Developing a  
Communication Plan*

*chapter*

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ADDENDUM 1

## Communicating State Stroke Burden Documents

This chapter of the *Communication Guide* provides a chart of components for a successful communication plan and offers two case studies to demonstrate how states have used stroke communication documents for interventions.

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## ADDENDUM 1

MANY STATES HAVE BURDEN DOCUMENTS AND PLANS for addressing stroke through 9-1-1 coverage and emergency medical service (EMS) policies. These state reports catalog stroke mortality, hospitalizations, and infrastructure within the state and help document policy and environmental needs for addressing stroke.

A stroke burden document provides opportunities for policy-related communication interventions, and the data can motivate key partners and provide material for media outreach, presentations, and public education. One such resource is the CDC publication, *The Burden of Heart Disease & Stroke in the United States: State and National Data*, 1999, reprinted August 2004. This document lists data sources and suggests elements to include in a burden book. (To request a copy of this report call 770-488-2424 and leave your name, mailing address, email address, and daytime telephone number.)

The table below lists some elements of a communication plan for announcing publication of a state's stroke burden document through a press conference and other media outreach. A more detailed rollout plan is presented in the supplement to Chapter 5.

#### SAMPLE COMMUNICATION PLAN FOR A STATE STROKE BURDEN DOCUMENT

<b>Communication Goals and Objectives</b>	To bring about policy change that will increase the number of communities with EMS stroke treatment protocols in place To engage partners To communicate relevant stroke data
<b>Organizational Identity</b>	State Department of Health Heart Disease and Stroke Prevention Program
<b>Target Audiences</b>	Legislators Regulatory agencies Medical professional societies Media Community organizations
<b>Communication Channels</b>	Media Partner meetings and materials Associations that serve target populations

**ADDENDUM 1: COMMUNICATING STATE STROKE BURDEN DOCUMENTS**

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**ADDENDUM 1**

<b>Messages, Materials, and Activities</b>	<p>Present report at coalition meeting and provide copies to all partners.</p> <p>Share report with relevant state departments, e.g., EMS, Medicaid, insurance regulators.</p> <p>Provide press release that includes data about differences within the state and where the state ranks compared with the rest of the country.</p> <p>Present press conference with key state leaders and partners.</p> <p>Mail report to state legislators, especially those on health-related committees.</p> <p>Develop PowerPoint presentation for use by program staff and partners.</p> <p>Disseminate information through health care organizations, nursing homes, and senior centers.</p>
<b>Partners</b>	<p>American Heart Association/American Stroke Association state affiliate</p> <p>Other state health agencies/departments (e.g., EMS)</p> <p>Medical professional societies</p> <p>Hospital associations, primary care association, etc.</p>
<b>Timeline</b>	<p>Begin planning for rollout several months before report is finalized. (See Chapter 5 supplement for sample rollout plan.)</p> <p>Share embargoed report with partners at least 1 month before press event.</p> <p>Share embargoed report with legislators and key opinion leaders at least 1 week before press event.</p> <p>Contact key print and broadcast reporters 1 week before the event. Schedule radio interviews and online chats immediately following event and continue for another 1 to 2 weeks.</p> <p>Issue media advisory 2 days before press event.</p> <p>Issue press release morning of press event.</p> <p>Conduct media outreach beginning 1 week before the event and continuing 1 week afterward.</p>
<b>Evaluation</b>	<p>Monitor media coverage.</p> <p>Create evaluation form and share with partners.</p> <p>Conduct in-depth interviews with key policy makers to gauge their reaction to the data and the rollout.</p> <p>Keep a log of partner activities relating to the report.</p> <p>Collect baseline number of emergency medical services with stroke protocols and of the number of stroke centers in state. Measure differences at 6 and 12 months after the launch.</p>

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## ADDENDUM 1

**ARKANSAS CASE STUDY**

The Arkansas state cardiovascular health plan's objectives are to improve knowledge of symptoms of heart attack and stroke among Arkansas residents and to identify culturally appropriate approaches to promote cardiovascular awareness and knowledge in at-risk, high-priority populations based on geography, gender, ethnicity, and income.

To help achieve these objectives, the State Heart Disease and Stroke Prevention Program conducted an environmental communication intervention at a local supermarket in the state's Delta counties. State program staff members engaged partners to print stroke symptoms on grocery bags, set up displays and conduct screenings at the supermarket, purchase radio advertising to promote the event, and circulate and tabulate surveys to evaluate the effectiveness of the intervention in increasing awareness of the signs and symptoms of stroke and the need to act quickly to seek treatment. The partners were so interested in the intervention that the supermarket chain donated the printing of grocery bags distributed to stores in six states. In addition, the radio station that ran the advertising sent its popular morning show host to broadcast onsite the day of the event.

Below is the communication plan for the Arkansas intervention.

<b>Communication Goals and Objectives</b>	<p>To improve knowledge of symptoms of heart attack and stroke among Arkansas residents</p> <p>To identify culturally appropriate approaches to promote cardiovascular awareness and knowledge in at-risk, high-priority populations based on geography, gender, ethnicity, and income</p> <p>To explore effectiveness of labeling grocery bags for raising awareness of signs and symptoms of stroke</p> <p>To engage partners in collaborating on a communication initiative</p> <p>To benchmark and evaluate stroke interventions</p>
<b>Organizational Identity</b>	Arkansas Department of Health
<b>Priority Audiences</b>	<p>African Americans</p> <p>Delta counties</p> <p>Pine Bluff, Arkansas</p>

**ADDENDUM 1: COMMUNICATING STATE STROKE BURDEN DOCUMENTS**

<b>Communication Channels</b>	<p>Printed grocery bags</p> <p>Radio stations</p> <p>Print and television media</p>
<b>Messages, Materials, and Activities</b>	<p>Grocery store displays, including banners and exhibits</p> <p>Grocery bags printed with stroke symptoms (distributed in six states)</p> <p>Appearance by local Congressional representative</p> <p>Health screenings by partners</p> <p>Cooking and shopping demonstrations to show how to purchase and prepare heart-healthy food</p> <p>Radio station remote broadcast with popular morning show host</p> <p>Television coverage</p> <p>Giveaways donated by partners to provide health-related information</p>
<b>Partners</b>	<p>Affiliated Foods</p> <p>Citadel Radio Stations</p> <p>Southeast Region of the Arkansas Department of Health's Hometown Health Initiative in Jefferson and Lee Counties</p> <p>Jefferson Tobacco Coalition</p> <p>Arkansas Minority Health Commission</p> <p>American Heart Association/American Stroke Association state affiliate</p>
<b>Timeline</b>	<p>Planning began 4 months before the event.</p> <p>The committee met biweekly until the event.</p> <p>The event ran on a Saturday from 9 a.m. to 3 p.m.</p> <p>Follow-up and evaluation occurred 4 weeks after the event.</p>

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**ADDENDUM 1**

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## ADDENDUM 1

**MONTANA CASE STUDY**

In the development of its heart disease and stroke burden document, Montana found that overall awareness of signs and symptoms of stroke was low and that EMS personnel did not have a protocol in place to assess potential stroke and to transport patients to a local stroke center quickly. After conducting extensive baseline and formative research to understand the scope of the problem, the state program devised an environmental communication intervention that combined advertising and EMS training to help increase awareness of stroke symptoms, emphasize the need to call 9-1-1, and decrease the amount of time required to transport stroke patients to hospitals. The entire intervention, including problem identification, partner development, media campaign, and evaluation, took about 18 months. Below is a summary communication plan for the Montana intervention.

<b>Communication Goals and Objectives</b>	Reduce burden of cardiovascular disease Improve health of Montanans Work in multiple settings Increase awareness of signs and symptoms of stroke among Montana residents Increase training of EMS personnel in assessing stroke Reduce patient travel times to a stroke center
<b>Organizational Identity</b>	Montana Department of Public Health and Human Services
<b>Target Audiences</b>	People at risk for stroke (older adults, history of heart disease, atrial fibrillation, smoking, obesity, high cholesterol, excessive alcohol use, diabetes, inactivity, hypertension) EMS personnel
<b>Communication Channels</b>	Radio public service announcements (PSAs) Television PSAs Brochure Poster Partner meetings
<b>Messages, Materials, and Activities</b>	Television advertising of three PSAs featuring physicians and stroke survivors Radio advertising Creation of "Prevent Stroke, Survive Stroke" brochure Newspaper advertising every other week for three months Publication and placement of "Health Special" advertisements and <i>Senior Lifestyle Guide</i> in newspapers. Distribution of <i>Your Years: Senior Lifestyle Guide</i> for use in doctors' offices and other health settings. Delivery of posters, brochures, and plastic brochure racks to health care settings.

## ADDENDUM 1: COMMUNICATING STATE STROKE BURDEN DOCUMENTS

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## ADDENDUM 1

<b>Partners</b>	<p>American Heart Association/American Stroke Association</p> <p>Local hospital with stroke center</p> <p>Local university</p> <p>Senior centers</p> <p>Pharmacies</p> <p>Local fire and rescue departments</p>
<b>Timeline</b>	<p><b>Months 1–6:</b> Conduct literature review and request materials from other initiatives.</p> <p><b>Months 3–7:</b> Develop and collect data for pre-intervention survey. Develop post-intervention survey.</p> <p><b>Months 5–8:</b> Meet with key partners.</p> <p><b>Months 5–6:</b> Recruit evaluation and media vendors.</p> <p><b>Months 7–9:</b> Message development: Analyze data from pre-intervention research. Train EMS personnel on standardized stroke assessment protocol.</p> <p><b>Months 10–12:</b> Deliver intervention with television, radio, and print advertising.</p> <p><b>Months 13–14:</b> Conduct post-intervention survey.</p> <p><b>Months 15–17:</b> Intervention recall post-post intervention survey.</p>
<b>Results/Evaluation</b>	<p><b>Pre- and post-intervention telephone surveys</b> evaluated initial impact of media campaign.</p> <ul style="list-style-type: none"> <li>■ 800 adults aged 45 years and older in two rural counties participated in a telephone survey to assess their perceived risk for stroke.</li> <li>■ 46% of respondents with three or more risk factors did not perceive themselves to be at risk.</li> </ul> <p><b>Evaluation study</b> included factors such as</p> <ul style="list-style-type: none"> <li>■ Time from symptom onset to emergency department arrival for ischemic patients compared with the American Heart Association's <i>Get with the Guidelines</i> criteria;</li> <li>■ Demographic and geographic characteristics of stroke (ischemic and transient ischemic attack [TIA]) patients;</li> <li>■ Transportation characteristics of stroke (ischemic or TIA) patients; and</li> <li>■ Discharge destination of stroke (ischemic or TIA) patients.</li> </ul> <p><b>Impact Evaluation</b> showed a slight increase in knowledge about stroke after the media campaign. Message recall among respondents 45 years or older was higher in the intervention community than in the comparison community</p> <p><b>Process Evaluation</b> surveys showed that baseline knowledge was already high and that media exposure may have been too short. However, communication programs increased the profile, discussion, and knowledge of stroke.</p>

# ADDENDUM

*Chapter 5: Working with the Media  
to Implement the Plan*

*chapter*

5

ADDENDUM 1

## Stroke Communication Strategies and Tools

There is great potential for improving stroke-related policy and environmental support through effective use of communication strategies and tools. A first step is for people at greatest risk for stroke and those around them to know the signs and symptoms of stroke and to be aware of the importance of acting quickly. A second step is for health care providers to understand the burden of stroke and know how to reduce that burden by creating stroke centers, protocols, and systems.

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## ADDENDUM 1

THE KEY TO A SUCCESSFUL COMMUNICATION EFFORT is to use available communication tools and tactics in support of a larger strategic approach. All program strategies should support specific program goals and objectives. (Refer to Chapters 4–6 of the *Communication Guide* for an extensive discussion about how to develop communication strategies to influence policy and environmental goals related to heart disease and stroke.) As described in the *Communication Guide*, the process of strategy development includes the following:

- segmenting target audiences and identifying primary and secondary audiences;
- gathering and assessing information about target audiences, such as current perceptions and beliefs, trusted sources of information, and barriers to change;
- determining the most appropriate communication channels for reaching a target audience;
- framing program messages;
- detailing an approach to conduct formative, process, and outcome evaluations of programs; and
- drafting a communication plan to serve as a road map for communication activities.

Once a strategy has been established, it is possible to select communication tactics that offer the greatest potential for success. For example, if one strategy is to use stroke mortality data to build support for state-based policy development on 9-1-1 coverage, a communication tactic in support of the strategy could be using stroke data to develop a briefing document for policy makers.

In this chapter addendum is an expansion of the communication tools and resources in the *Communication Guide* to provide additional stroke-specific tools to support communication strategies. In many cases, these materials include placeholders for inserting local data and statistics to reinforce central messages.

The CDC's *Atlas of Stroke Mortality* and state cardiovascular health burden documents provide information. In addition, CDC is planning publication on the CVH Website ([www.cdc.gov/cvh](http://www.cdc.gov/cvh)) of the *Atlas of Stroke Hospitalizations* in 2005; this resource should provide additional state- and county-based data on stroke. The health care organizations on a communication task force can be helpful in identifying patient success stories to help bring to life the problem of stroke and its solutions for a reporter or editor and to facilitate a news story.

### **THIS CHAPTER ADDENDUM CONTAINS**

- A model rollout plan for a state stroke burden report;
- A sample press release for Stroke Awareness Month in May; and
- A sample op-ed piece for local publications.

### **MODEL ROLLOUT PLAN FOR STATE STROKE BURDEN REPORT**

Stroke burden documents provide an opportunity for a policy-related communication intervention. These data can motivate key partners and provide material for media outreach, presentations, and public education. A well-planned rollout for a stroke burden document can help raise visibility for a state program and the issues it addresses.

The best way to elicit news coverage and interest from key opinion leaders is to link the report's release to another newsworthy event. For example, the report could be released at a meeting of the state's public health or hospital association so reporters covering the event will already be on hand. Or, the release could be tied to a state legislative health day or governor's health event. If possible, the report should offer a news angle for Stroke Awareness Month outreach. A state program could consider holding a press conference to release the report during or just before a Stroke Awareness Month screening event conducted by one of its partners to garner media interest and leverage partners' efforts.

It is essential to work with the health department's communications office to obtain appropriate clearances for media outreach. In most cases, if the communications officers find the burden report release newsworthy, they will take on many of the tasks related to materials development and logistics planning as outlined in the next section. In addition, they can help engage high-level state officials to participate in the announcement.

**ADDENDUM 1: STROKE COMMUNICATION STRATEGIES AND TOOLS**

Below is a model communication plan for announcing the publication of a state's stroke plan through a press conference and other media outreach.

**ACTIVITIES**

<b>Partner Outreach</b>	<p>Research and compile lists of desired partners.</p> <p>Contact and secure support from partners that are involved in the stroke community.</p> <p>Define each partner's role in contributing to the event.</p>
<b>Press Conference Planning</b>	<p>Secure site and necessary materials for event.</p> <p>Plan and draft program.</p> <p>Select and invite speakers.</p> <p>Compose lists of media/general invitees.</p> <p>Send necessary documents (e.g., talking points, stroke burden documents, contact lists) to parties involved with event.</p>
<b>Media Materials</b>	<p>Provide copies of the following for assembled media representatives:</p> <ul style="list-style-type: none"> <li>■ Media advisory,</li> <li>■ Press release,</li> <li>■ Information sheets (e.g., question-and-answer sheets, fact sheets),</li> <li>■ Biographical information for notables at press conference, and</li> <li>■ Press kits.</li> </ul>
<b>Media Outreach</b>	<p>Compile contact lists of target media, organizations, and audiences.</p> <p>Use media materials appropriate for target audiences.</p> <p>Gather interesting stories and contacts to attract media.</p> <p>Create ways to monitor and evaluate media stories about the event.</p>

**TIMELINE**

<b>One Month Prior to Launch</b>	<p>Share embargoed report with key partners.</p> <p>Notify state's communications office and request assistance in an announcement.</p> <p>Draft media advisory and press release and submit to communications office for clearance.</p>
<b>Two Weeks Prior to Launch</b>	<p>Select speakers for press conference. Include state cardiovascular health staff, key medical and disease group partners, stroke champions, and coalition members.</p> <p>Consider identifying a stroke patient in the state who benefited from the state's stroke system. Patients are particularly important for television coverage.</p> <p>Collect biographical information from speakers for introductions at press conference.</p> <p>Share draft media materials with key partners for review.</p> <p>Reserve space for press conference.</p> <p>Reserve proper audiovisual systems (e.g., microphone, computer, slide or LCD projector).</p> <p>Patients are particularly important for television coverage. Be sure to have an appropriate release form signed by the patient.</p>

<b>One Week Prior to Launch</b>	<p>Write talking points for all speakers to ensure they provide different information and highlight different key findings.</p> <p>Begin assembling press kits. Include the release, speaker biographical sketches, and fact sheets about the state's Heart Disease and Stroke Prevention Program.</p> <p>Deliver the media advisory and embargoed stroke reports to state legislators, especially those who are serving on health committees or who are interested in heart disease and stroke. Include a letter stating that program staff are available to provide background or testimony about the report's content and other cardiovascular health issues.</p> <p>Contact talk radio shows that interview guests to schedule interviews immediately following the press briefing. Provide an executive summary of the stroke report but emphasize that it is embargoed until the day of the press conference.</p> <p>Invite members on stroke councils or coalitions to attend the press conference.</p>
<b>Day Before Launch</b>	<p>Issue media advisory through the state's communications office.</p> <p>Call key state reporters who cover state government or health care to ensure that they receive the advisory and to encourage them to attend.</p> <p>Convene speakers for a dry run in which they deliver their talking points and take mock questions reporters are likely to ask. Speakers should be limited to 5–7 minutes each.</p> <p>Email stroke council members with the media advisory and ask them to share the final report with their constituencies when it is released.</p>
<b>Day of Event</b>	<p>Arrive at least 90 minutes early to make sure the room is set up appropriately and all materials are ready.</p> <p>Have a press sign-in sheet to track which publications to check for coverage and for follow up with reporters.</p> <p>Issue press release on newswires at beginning of event.</p> <p>Write down all questions reporters ask to help you prepare for subsequent interviews and future press events.</p> <p>Obtain phone and cell phone numbers for all speakers in case a reporter inquires later in the day with a follow-up question.</p>
<b>One Week After Event</b>	<p>Provide partners with a template newsletter article about the stroke report to publish in their communication vehicles.</p> <p>Compile a media report with photocopies of print coverage and listings of broadcast coverage. Share with key partners to reinforce their investment in the launch.</p>
<b>One Month After Event</b>	<p>Meet with state coalitions or stroke councils to evaluate report launch and reflect on lessons learned.</p> <p>Document any inquiries received from health care or EMS organizations about implementation of stroke centers or protocols.</p>

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## ADDENDUM 1

### **SAMPLE PRESS RELEASE FOR STROKE AWARENESS MONTH**

Stroke Awareness Month is held each May. During this month, federal agencies and national stroke organizations conduct extensive media outreach, awareness events, and other activities to raise public awareness of stroke prevention and treatment.

Stroke Awareness Month is an opportunity for state heart disease and stroke prevention programs to work with the media and partners to raise awareness of the signs and symptoms of stroke and of the state's efforts to improve secondary prevention of stroke.

Below is a template for a press release that staff can use to create a state-specific release to issue at the beginning of Stroke Awareness Month. As always, work with your health department's public information office to draft and issue a press release within proper state protocols.

FOR IMMEDIATE RELEASE  
May 1, 2005

For more information contact:  
[INSERT CONTACT NAME]  
[INSERT PHONE, EMAIL]

**STROKE MONTH ACTIVITIES RAISE AWARENESS OF THE SIGNS AND SYMPTOMS OF STROKE AND INCREASE THE NUMBER OF PATIENTS GETTING TREATMENT**

[INSERT CITY, INSERT STATE]—Though there are treatments available that can reverse disability from stroke, less than five percent of patients in [INSERT STATE NAME] and throughout the country receive them. Stroke is the third-leading cause of death and a leading cause of adult disability nationwide. And, in [INSERT STATE NAME], stroke affects more than [INSERT NUMBER] people who have strokes annually and [INSERT NUMBER] people who experience strokes and survive.

To help increase the number of stroke patients who receive treatment for stroke, [INSERT STATE NAME] is working with the Centers for Disease Control and Prevention (CDC) to raise public awareness of stroke signs and symptoms and to help improve health care for stroke patients.

May is national Stroke Awareness Month. During May and throughout the year, [INSERT STATE NAME] will work to raise awareness of the signs and symptoms of stroke and encourage people to call 9-1-1 immediately if they experience or witness anyone experiencing the following symptoms:

- Sudden numbness or weakness of face, arm, or leg—especially on one side of the body;
- Sudden confusion, trouble speaking, or difficulty understanding;
- Sudden trouble seeing in one or both eyes;
- Sudden trouble walking, dizziness, loss of balance or coordination; or
- Sudden severe headache with no known cause.

"Again and again we see in studies that patients do not recognize symptoms as stroke and fail to get to the hospital in time. This is a crisis of underutilization that causes unnecessary disability and costs millions extra in health care costs nationwide," said Dr. George Mensah, Distinguished Scientist and Consultant in Heart Disease and Stroke Prevention, Division for Heart Disease and Stroke Prevention at CDC.

[INSERT SPECIFIC INFORMATION ON STATE ACTIVITIES]

During Stroke Awareness Month, [INSERT STATE NAME] encourages people at risk for stroke and their family members, friends, and caregivers to learn the signs of stroke. In many cases a person experiencing stroke does not realize it is occurring, but bystanders can recognize the symptoms and act quickly.

"The best thing to do when you see someone having a stroke is to call 9-1-1 immediately," said [INSERT NAME, TITLE]. "Getting stroke victims to the hospital immediately can greatly increase their chance of having little or no disability," [INSERT NAME] said.

Additionally, states are working with local communities to improve hospital and emergency medical services and increase quality of care for stroke patients. This process requires working with neurologists, radiologists, emergency physicians, nurses, emergency medical technicians, and others (such as primary care physicians and family practice physicians) to create and implement systems and protocols for evaluating and treating stroke patients.

"By improving the systems that affect stroke care, we can dramatically improve the outcomes for many patients," said [INSERT NAME HERE]. "The key to stroke care is creating a chain of recovery that is focused on identifying and treating stroke patients at the earliest stage possible."

For more information about the signs and symptoms of stroke, please visit [INSERT STATE WEBSITE HERE].

*CDC protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national, and international organizations. Since 1998, CDC has funded state programs to prevent heart disease and stroke. At present, 32 states and the District of Columbia receive such funds. For additional information see [www.cdc.gov/cvh](http://www.cdc.gov/cvh).*

[INSERT STATE BOILER PLATE]

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**SAMPLE OP-ED ARTICLE**

Op-ed articles are brief opinion pieces usually published opposite the editorial page in newspapers. They allow readers to present a particular position or thought on timely or controversial topics in greater depth than possible with a letter to the editor.

The Tools and Resources chapter of the *Communication Guide* includes an op-ed piece about stroke focused on influencing policymakers. The sample op-ed below offers consumer education messages to help increase the number of patients who access stroke centers and systems. It focuses on a patient success story from Birmingham, Alabama and includes state-level data. The approach can be tailored to any state with stories of patients who recognized stroke symptoms and called 9-1-1, with state-level data from CDC's *Atlas of Stroke Mortality*, or with data from a state's Paul Coverdell National Acute Stroke Registry (if applicable).

**YOU ARE THE FIRST LINK IN THE CHAIN OF RECOVERY**

By [INSERT NAME]  
[INSERT TITLE]  
[INSERT STATE HEALTH DEPARTMENT NAME]

Joe Ray Dailey woke up one morning unable to speak. Recognizing quickly that something was wrong, Dailey's wife immediately dialed 9-1-1 for an ambulance to get help as soon as possible. She did not know that Joe Ray was about to become a patient in one of the nation's most sophisticated stroke systems.

Nineteen of Birmingham's hospitals and emergency medical services have joined together to create a network of hospitals that offer stroke centers to quickly evaluate stroke patients, decide if they are candidates for treatments that can reverse the symptoms of stroke, and to provide around-the-clock care. The 9-1-1 call started a process that routed Joe Ray to Carraway Methodist Medical Center. Once he was there, doctors quickly scanned his brain, determined he had a blood clot, and administered treatments that dissolved the clot and reversed his symptoms.

Stroke is the third-leading cause of death and a leading cause of disability in the United States. More than 700,000 new strokes are reported each year, and Alabama ranks 27th in stroke deaths in the United States.

Fortunately, many of these strokes and much of the death and disability resulting from stroke can now be prevented. Over the past several years, scientists have developed new treatments that can reduce the number of stroke deaths and disabilities. The reality, though, is that few benefit from these new treatments because most have to be administered within the first few hours of stroke onset. In far too many cases, people do not recognize the signs and symptoms of stroke and arrive at the hospital too late to receive this treatment.

We are lucky to have access to a state-of-the-art stroke system and cutting-edge treatments for stroke. But, to ensure that our system can do its work, we all must learn the signs of stroke and, if we see them in ourselves or someone around us, make the decision to call 9-1-1.

These are the signs of stroke:

- sudden numbness or weakness of the face, arm, or leg (especially on one side of the body);
- sudden confusion, trouble speaking, or difficulty understanding speech;
- sudden trouble seeing in one or both eyes;
- sudden trouble walking, dizziness, or loss of balance or coordination;
- sudden, severe headache with no known cause.

Learn these signs, and our emergency medical technicians and hospitals can help more people with stroke walk out of the hospital. They are doing their jobs. Now it is time for all of us to do ours.

# ADDENDUM

*Chapter 6: Using Other  
Communication Strategies and  
Tactics to Implement the Plan*

*chapter*

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ADDENDUM 1

## Additional Communication Strategies

In addition to traditional media outreach, many communication vehicles and strategies are available to states to help them disseminate messages about stroke. Chapter 6 of the *Communication Guide* offers tips on delivering testimony, making presentations, and creating exhibits on heart disease and stroke prevention. In this supplement are additional stroke-related resources, including a drop-in article and some talking points. These can be adapted for presentations, email distribution lists, electronic bulletin boards, and other communication strategies.

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## ADDENDUM 1

### **SAMPLE DROP-IN ARTICLE**

A drop-in article is a completely prewritten news or feature story that can be published verbatim in state health department publications, organizational newsletters, community magazines, shopping guides, and other local publications read by key audiences.

#### **RECOGNIZE THE SIGNS OF STROKE**

Each year more than 700,000 Americans suffer a stroke. Yet many Americans do not know the signs and symptoms of a stroke or what to do when they witness someone having a stroke. Just like a heart attack, a stroke is a medical emergency requiring immediate treatment.

A stroke occurs when blood flow to the brain is interrupted. Brain cells die when deprived of oxygen and nutrients provided by blood. Because stroke injures the brain, a person having a stroke may not realize what is happening.

[INSERT STATE HEALTH DEPARTMENT NAME] encourages the public to recognize the signs and symptoms of stroke:

- sudden numbness or weakness of the face, arm, or leg—especially on one side of the body;
- sudden confusion, trouble speaking, or difficulty understanding speech;
- sudden trouble seeing in one or both eyes;
- sudden trouble walking, dizziness, or loss of balance or coordination; and
- sudden severe headache with no known cause.

If you recognize any of these symptoms, it is important to call 9-1-1 or your local emergency number immediately. Local hospitals and stroke centers have treatments available that can reduce the risk of severe disability, but patients must get help quickly for these treatments to be effective.

For more information on stroke or information on reducing the risk of stroke, please call [INSERT STATE HEALTH DEPARTMENT NAME] at [INSERT NUMBER] or visit [INSERT WEB SITE].

**SAMPLE TALKING POINTS**

Talking points should always be tailored to a specific meeting, presentation, media interview, or other planned communication activity. It also is a good idea to have general talking points prepared for responding to unexpected calls and other requests for information from the media, potential partners, and others. Below are sample talking points on acute stroke.

**TOPIC: STROKE CENTERS**

- There are many approved treatments for stroke that can dramatically reduce disability, but currently fewer than five percent of eligible patients receive approved treatments for acute ischemic stroke.
- The health care system in our state is not set up to rapidly diagnose and treat stroke patients.
- According to a survey conducted by the American Academy of Neurology, 20 percent of the U.S. population is without access to acute neurological services.
- As a result, many patients do not receive approved treatments for acute ischemic stroke that could improve survival and reduce disability.
- The Joint Commission on Accreditation of Healthcare Organizations is certifying hospitals that want to become stroke centers.
- By encouraging stroke center certification, the health care community can potentially increase the number of people who recover from stroke, reduce hospital stays, and reduce the burden of stroke on health care and rehabilitation systems.

**NATIONAL DATA—STROKE:**

The points listed here are from statistical information in previous years. Check the American Stroke Association website ([www.strokeassociation.org](http://www.strokeassociation.org)) or other current information to quote the latest statistics.

- Stroke is the third-leading killer in the United States and a leading cause of severe, long-term disability.
- Each year about 700,000 people experience a new or recurrent stroke—about 500,000 of these are first attacks, and 200,000 are recurrent.
- In 1999, more than 1.1 million American adults reported difficulty with activities of daily living and other functional limitations resulting from stroke.
- In 2000, females accounted for 61.4 percent of stroke fatalities.
- Between 1991 and 2001 there was a rise in the number of U.S. adults who have a recognized risk factor for heart disease and stroke, and growing numbers of Americans are reaching older ages at which stroke is especially common. As a result, the national burden of heart disease and stroke is expected to increase.
- The 2000 death rates per 100,000 population for stroke were 58.6 for white males, 87.1 for black males, 57.8 for white females, and 78.1 for black females.
- From the early 1970s to the early 1990s, the estimated number of non-institutionalized stroke survivors increased from 1.5 to 2.4 million.
- Stroke costs the United States \$30 to \$40 billion per year.

**CONSUMER MESSAGES FOR ACUTE STROKE:**

- The signs of stroke are
  - sudden numbness or weakness of the face, arm, or leg—especially on one side of the body;
  - sudden confusion, trouble speaking, or difficulty understanding speech;
  - sudden trouble seeing in one or both eyes;
  - sudden trouble walking, dizziness, or loss of balance or coordination; and
  - sudden severe headache with no known cause.
- If you are aware of the signs of stroke in yourself or someone else, call 9-1-1 or your local emergency number.
- Getting to a hospital stroke center within 60 minutes of the onset of stroke symptoms may reduce disability from a stroke.

**ADDENDUM 1: ADDITIONAL COMMUNICATION STRATEGIES**

**SOURCES:**

American Heart Association (AHA), *Heart Disease and Stroke Statistics*, update for current year. Check the AHA website for most recent information: [www.americanheart.org](http://www.americanheart.org).

Centers for Disease Control and Prevention. *Atlas of Stroke Mortality: Racial, Ethnic, and Geographic Disparities in the United States* [online]. 2003 [cited 2003 July 3]: [www.cdc.gov/cvh/maps/strokeatlas/atlas.htm](http://www.cdc.gov/cvh/maps/strokeatlas/atlas.htm).

National Institute of Neurological Disorders and Stroke. "Choosing Your Level of Care." 2002 Symposium, *Improving the Chain of Recovery for Acute Stroke Patients in Your Community*. [Task force report]: [www.ninds.nih.gov/news\\_and\\_events/proceedings/stroke\\_2002/acute\\_stroke\\_choosing.htm](http://www.ninds.nih.gov/news_and_events/proceedings/stroke_2002/acute_stroke_choosing.htm)

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**ADDENDUM 1**